THE TRAINING SCHOOL BULLETIN

VOLUME 35 MARCH, 1938 NUMBER 1

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MISS MARY L. VERNON

HONORED ON HER

FIFTIETH ANNIVERSARY

AT THE TRAINING SCHOOL

THE
TRAINING SCHOOL BULLETIN

MARCH, 1938

The Golden Year

The Fiftieth Anniversary of the founding of the Training School was fittingly observed on March the first, 1938. For the afternoon program, the Board of Visitors arranged a most appropriate memorial to the Reverend S. Olin Garrison, the founder, in the form of a tree planting. The text of the program, which was held at Garrison Hall, was Psalm 1, Verse 3:

> "And he shall be like a tree planted by the rivers of water, that bringeth forth his fruit in his seasons; his leaf also shall not wither, and whatsoever he doeth shall prosper."

PROGRAM

Garrison Hall — Four o'clock
Howard I. Branson — Presiding

Hymn	"America the Beautiful"	The Band
Invocation		Rev. J. C. Brookins
Vocal Solo	"My Task"	Mrs. Ruth Aker
Remarks	"The Founder"	E. R. Johnstone
Cornet Solo	"Still as the Night"	Charlie Ashton
Remarks	"Growth, Our Challenge"	Mrs. Howard Hancock
Male Quartet	"Trees"	
	Messers Nash, D. Johnstone, Holden, Watts	
Dedication of Tree		Miss Mary L. Vernon
Hymn	"Softly Now the Light of Day"	The Band
	Children's Benediction	

We quote briefly from the remarks made by Mr. Branson, Professor Johnstone and Mrs. Hancock: "We are planting a tree in honor of a man who had a dream and who made that dream come true." "He gathered from the land and spread his blessings like branches over a wide area, the leaves and blos-

soms of his accomplishments falling on many." "Mr. Garrison was one of the first men to discover that no child, no matter how mentally deficient he may be, is incapable of learning something even though it may be a very slight accomplishment." In conclusion Professor Johnstone said that Mr. Garrison's real monument, was the Institution itself. Tribute was paid to Senator Philip P. Baker, for many years president of the Board of Trustees, and Mr. George Davidson, treasurer, both of whom rendered great service during the early years of the School.

One of the pupils who arrived on that first day, fifty years ago was present and took part in the exercises.

A scarlet oak tree was planted near the entrance gate in memory of Mr. Garrison. This is a very beautiful tree that lives to great age. The dedication was by Miss Mary L. Vernon who came with Mr. Garrison and his family on March first, 1888 at almost the same hour as the dedication of the tree.

Miss Vernon has given her whole life to the girls and boys of the Training School and her efficiency and wisdom, patience and love have been woven day by day into the structure of the School through its fifty years of growth.

We are happy to enclose a picture of Miss Vernon with this issue of the Bulletin, knowing the pleasure it will bring to a great number of our readers.

* * * * * *

In the evening of the same day a banquet was given by the Trustees and Board of Visitors to the employees of the Training School. The party numbered over two hundred. The banquet was an expression of appreciation on the part of the Boards of Trustees and Visitors for loyalty and the faithful and efficient care always given to the children of the Training School.

The banquet was in Garrison Hall and with music and beautiful flowers was a happy and colorful occasion. Professor Johnstone, the Toast-master, was supported by members of the two Boards. We can only give here very briefly a few of the inspirational and interesting remarks made at the meeting.

Mr. Branson, the president of the Board, paid tribute to former Trustees and spoke of the importance of each employee in working out his own part in the great design that makes the Training School possible.

Ex-Governor Edward C. Stokes, who has been a member of the Board of Trustees since 1894 told in his humorous way of the beginnings of the Training School in Millville, of its later growth and his interest in legislation for the institutions of the State during his years in the Senate. He strongly urged the importance of extended research which he believes will eventually eliminate many of the crimes and labor misunderstandings of today; when we learn from such studies as are being made here that men should be paid according to their mental and physical abilities. To the Toast-master he said, "In your life God walks and is your guide in your great work."

Mrs. Tomlin, of the Board of Visitors, told of her acquaintance with the School from her earliest childhood. She recalled the Founder, trustees and employees who served faithfully in the past, and added many humorous incidents.

Mrs. C. E. Synnott, president of the Board of Visitors presented Miss Vernon with a beautiful cameo brooch as a birthday gift on her fiiftieth institution birthday.

Mr. Bible paid special tribute to "Miss Annie," Mr. Veale and Mr. Arnade, now deceased. He referred to the group of employees which he called "the silver degree group"—those who have been in the service of the School for twenty-five years or more. He said that there had been through the long years of their service, loyalty, cooperation, fortitude, courage, kindliness, "happiness first," patience, long suffering, amiability, and obedience for without these qualities they could never have maintained the spirit of the Training School. "If you would see the monument go about the School and visit the children."

Diplomas were presented to twenty employees for efficiency in service and loyal Institution spirit.

Each employee was presented with a very beautiful souvenir pencil by the Boards of Trustees and Visitors.

Former Judge Francis Stanger, Jr., who is chairman of the committee for the various jubilee celebrations throughout the year spoke of his appreciation for the kind of work that is done in the School which does not have the dollar sign always in mind. He reminded the people that great work has been done but that there is lots more ahead to be done.

—Helen Hill

Electrical Phenomena of the Brain Among the Feeble-minded[1]—*

GEORGE KREEZER, Research Associate

The Training School at Vineland, New Jersey

The present investigation was undertaken for the purpose of throwing light on the processes occurring in the cerebral cortex of the feeble-minded. There is quite general agreement that the organic defects most directly responsible for the intellectual deficiencies of the feeble-minded probably have their locus in the cortex. Progress in our knowledge of the properties and processes of the cerebral cortex has, however, been seriously handicapped by the apparent absence of methods capable of providing information about the processes which occur in the living brain tissue of intact individuals.

In a search for methods that might be used in investigations of brain processes in intact individuals, one's attention turns soon to the methods of electro-physiology (14). Methods in this field have been signally successful in revealing the nature of activities in functioning tissues and organs without interfering seriously with the natural course of their activity. Of particular importance have been the methods designed for detection of the fluctuations of electric potential which seem to be almost invariably associated with physiological activity. The use of this type of technique in the clinical recording of the electro-cardiogram is well-known. The recording of the electrical activities of sensory and motor nerves and of striated and smooth muscle has contributed materially to an understanding of the way these tissues function. It is natural, then, to consider the possibilities of the same type of technique being of aid in clarifying our ideas of the manner in which the brain itself operates.

If we turn to the literature we find that as long as 60 years ago physiologists were successful in detecting electrical poten-

* Presented at Annual Meeting of the American Association on Mental Deficiency, Atlantic City, May 8, 1938, and reprinted by permission from the Proceedings.

1 I am greatly indebted to Mr. George B. Thorn, Superintendent of the Vineland State School, to Mr. Edward L. Johnstone, Superintendent of the Woodbine Colony for Feebleminded Males, and to Miss Dorothy M. Bassett, psychologist at the Vineland State School whose cooperation made possible access to individuals in those institutions. Dr. George A. Jervis of Letchworth Village very kindly indentified the individuals with phenylketonuria on whom electro-encephalograms were taken. Mr. Franklin W. Smith, Research Fellow, assisted in various phases of this study. The investigations reported were aided by a grant from the National Research Council.

tials in the brains of animals[2]. Caton, in 1875, reported the detection of electrical potentials in the cerebral cortex of rabbits and monkeys. Some years later, in 1889, Gotch and Horsely found characteristic electrical fluctuations in various parts of the brain to be associated with stimulation of sensory and motor systems, and beginning a year later, Beck reported a series of studies on frogs, rabbits, dogs, and monkeys indicating striking degrees of localization of electrical effects produced in the brain by perpheral stimulation. From that period until the present, intermittent reports of investigations of the electrical phenomena of the brain have appeared. Interest in this field of work is thus not entirely of recent origin. In 1929, Berger, a psychiatrist with physiological interests, reported that he had been able to detect electric potentials of cerebral origin with electrodes attached to the head of intact human subjects. This report, together with subsequent reports by Berger on the human electro-encephalogram, the name he applied to the records obtained of the electrical activity of the human brain, stimulated renewed interest in the investigation of the electrical activity of the brain.

The work thus stimulated in many laboratories throughout the world has been of three kinds: (1) Investigations of the empirical relations between the electro-encephalogram and various psychological and physiological states in normal human subjects[3], (2) investigations of the empirical relations between the human electro-encephalogram and various pathological states associated with presumable brain lesions, and (3) investigations with animal material of the influence on the electro-encephalogram of the factors—structural, physiological, physical, and chemical—on which the electrical activity of the brain may depend.

The work on the electrical potentials of the brain in the feeble-minded, which I shall sketch in the present paper, thus falls into the group of investigations of the second class. This work was concerned with an investigation of the empirical relations that might obtain between the electro-encephalogram and the chief properties in which the feeble-minded differ from the mentally normal and from each other. In order to make possible an estimate of the value of the electro-encephalogram

2 For a review of early work in this field, see Fisher (6).

3 A concise account of some of the chief phenomena found among normal persons is given by Davis and Davis (2).

in the investigation of the physiological basis of mental deficiency, it seemed necessary as a first step to determine whether the chief psychological peculiarities of the feeble-minded found a counterpart in the electro-encephalogram. It was desirable initially therefore to obtain answers to the following questions: (1) How does the electro-encephalogram vary, if at all, with level of intelligence; and (2) how does it vary with differences in clinical and etiological types of mental deficiency? Answers to these questions should provide a basis for estimating the desirability of any further attempts to use the electro-encephalogram in the investigation of the organic basis of mental deficiency. In the course of this investigation, records have been obtained, up to the present, on a total of about 170 individuals.[4]

Before we examine some of the chief results of this survey, consideration of a few methodological and technical points will be of value. The technique used for detection of the electrical potentials of the brain in the intact human subject is in principle extremely simple. Minute currents picked up by electrodes attached to the head of a subject are led to an amplifier by means of which they are increased enormously in magnitude, and then led through a recording instrument, or oscillograph. The latter instrument provides a permanent record of the form of the electrical fluctuations initially detected. The fluctuations in potential between the electrodes on the head which the amplifier-oscillograph system must be capable of detecting are extremely small, of the order of a millionth of a volt. In order for such exceedingly small magnitudes of brain origin to be detectable, it is obvious that great care must be used to prevent the occurrence of electrical artifacts that may obscure the physiological potentials under investigation, or may falsify the record obtained. Such artifacts may arise from many sources, from electrical disturbances outside of the subject and apparatus, from electrical disturbances in the amplifier, and from physiological sources other than the brain. An important aspect of any investigation of the human electro-encephalogram must therefore consist of the measures taken to exclude the presence of artifacts, or to permit them to be readily recognized in the records, if present.

4 Berger in the course of his extensive work on the electro-encephalogram has also obtained records on a limited number of mentally deficient individuals (a total of about 10). Mental age level and clinical type were not reported for the subjects examined, classification being in terms of gross level of deficiency such as idiot, imbecile, and "feebleminded" (1).

Related to the question of artifacts is the question of the nature of the physiological evidence that the electrical potentials detected on intact scalp really originate in the cerebral cortex. of direct bearing on this question are the experiments of Kornmuller and Tonnies (11), in which records of like form were obtained separately from the external scalp, from the bones of the skull, and finally from the surface of the cortex of the same experimental animal. Evidence of the role of the cortical cells in producing the potentials detectable at the surface of the cortex are provided by the experiments of Dusser de Barenne and McCulloch (4). These investigators found that when all the layers of the cortex were destroyed by thermo-coagulation electrical potentials were no longer detectable by means of electrodes connected to the coagulated cortical surface, and that lesser degrees of alteration of the records of electrical potentials were produced by destruction of fewer layers of cells. These lines of evidence, along with many others, leave little room for doubt that electrical potentials of cortical origin may be detected by eloctrodes attached to intact scalp.[5]

A third methodological question of importance is concerned with the practice followed in grouping the mentally deficient subjects that provide the material for the investigation. In the present series of studies the practice has been followed of dealing with the different clinical types in separate groups. By following this procedure it was felt that we were more likely to obtain groups relatively more homogeneous with respect to brain pathology than if we dealt with the feeble-minded as a single coherent group. It is possibly not necessary to point out that complete homogeniety is not to be expected even through the use of this procedure. In the present state of knowledge, the diagnosis of a subject as belonging to a given clinical type can in many cases be regarded as representing only a certain degree of probability. There is, moreover, no guarantee that brain pathology in each of the different clinical types is of a distinct kind, or that in any given variety of mental deficiency, only a single kind of brain pathology is involved. These are all questions whose solution must depend on further research. It seemed desirable, however, in planning the methodology of the investigation, to allow for the possibility of special types of brain pathology being associated with the dif-

5 For a survey of various lines of evidence, see Jasper and Andrews (9).

ferent clinical types of mental deficiency. The selection of subreports of the medical and psychological clinics of the institution. The detailed statement of the clinical characteristics of jects as belonging to different clinical types was based on the the subjects in the different groups must be reserved for later, more detailed reports.

What now are some of the chief results of our investigation of the electro-encephalogram in different varieties and levels of the mentally deficient? In examination of the influence of intelligence level, the possible influence of chronological age may be conveniently controlled by dealing initially only with adult subjects. The following results therefore relate to groups in which the subjects were all over 16 years of age chronologically. The group made up of subjects with the hereditary type of mental deficiency and that comprising the mongolian type contained the largest number of subjects and showed the widest mental age range. These groups consequently proved to be the most useful ones in the examination of the influence of mental age. The procedure followed in determining the influence of mental age may be illustrated by the results obtained with the hereditary group. The subjects included in this group were those who belonged to none of the special clinical types and for whom family history indicated the probability that the mental deficiency was hereditary in origin. Special "hereditary types" such as amaurotic family idiocy and phenylpyruvic amentia were thus excluded from this group. The group contained forty-six subjects. Characteristics of the electro-encephalogram examined were: (1) Percentage of time occupied by regular alpha sequences, (2) average amplitude of waves, and (3) average frequency of waves in regular sequences.

Examples of the kinds of records obtained from subjects in the hereditary group are shown in Figure 1. It will be noted in certain of the records, in that of subject Mo, for example, that there are regions of the record with successions of waves of about the same duration. Waves of this type have been called "alpha waves" by Berger. Wherever there was a sequence of five or more waves of this sort, it was marked off and labelled as a "regular sequence." One of the properties measured in each subject's record was the percentage of time during which such regular sequences occurred throughout a total record lasting 40 seconds. The average amplitude of waves in regular sequences was determined from measurements

of the individual waves, measured from trough to peak and recorded in microvolts. The specification of the frequency of waves in regular sequences was based on determination of average frequency of waves occurring per second throughout a total record.

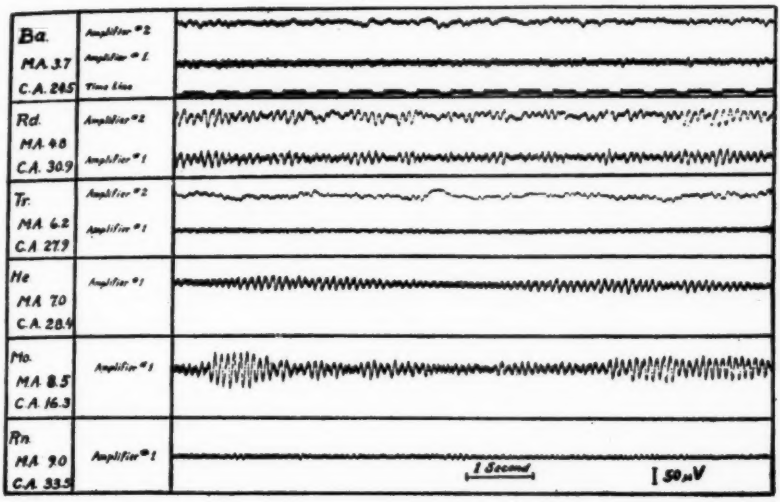

FIGURE 1—Electro-encephalograms of mentally deficient subjects of the hereditary type. M.A. indicates mental age, and C.A. chronological age. The records considered in the text are those corresponding to amplifier No. 1.

When these properties of the records were examined for the subjects in successive mental age groups ranging from a Binet mental age of 3 to that of 10 years, evidence was found that a rather sudden break occurred at the 8-year level. In calculation of statistics, the practice was therefore followed of averaging the properties of the electro-encephalogram for all subjects under a Binet mental age of 8 in one group, and for subjects between Binet mental ages of 8 and 10 in another. A third group of still higher mental age was provided by a group of 15 mentally normal male adults, who can be regarded as having an average mental age of 15 years. When the data were treated in this way, it was found that as the mental age level increased, the following changes occurred in the average properties of the electro-encephalogram. There was, first, an increase in percentage of time occupied by regular sequences; second, an increase in the average frequency of waves in regular sequences; third, an increase in average amplitude of waves

in regular sequences. In certain cases, the differences between the arithmetic means for successive mental age groups were statistically significant in terms of the statistical criteria recommended by R. A. Fisher (5). In some cases the differences were not completely significant statistically, but were reliable enough to justify further investigation. The outstanding result was then that there was distinct evidence of a variation in the properties of the electro-encephalogram with variation in the mental age level. There is therefore reason to expect that further physiological investigation of the conditions in the brain that could have caused such differences in the electro-encephalogram may throw light on the specific cortical conditions that are associated with differences in mental age.

When we turn now to the mongolian group and investigate the influence of mental age, we find certain similarities with the results obtained for the hereditary group. Records were obtained on a total of 41 mongolian subjects, 26 of them older than 16 years of age chronologically. In this group it was found, as in the hereditary group, that subjects of relatively high mental age differed from those of relatively low mental age in showing a greater prevalence of regular sequences of alpha waves, a greater average frequency of waves in regular sequences, and in showing waves of considerably greater average amplitude. In the mongolian group, however, the sudden change in the properties of the electro-encephalogram with increasing mental age occurred at a mental age of 6 rather than 8.[6] Further details concerning the influence of mental age on the electro-encephalogram must be left to more detailed reports.

A second question of great interest relates to the comparison of the electro-encephalograms of subjects of different clinical types (3). The types investigated besides the non-differentiated hereditary type, and the mongolian type, were hydrocephalus, microcephaly, cretinism, and phenylpyruvic amentia. The number of subjects in certain of these special groups is still relatively small; the results must accordingly be regarded as provisional.

A general view of the differences in the average properties of the electro-encephalogram for the different clinical types is provided by Figures 2A, 2B, and 2C. In order to maintain

6 Since the time of this report, the investigation has been extended to 50 adult mongols. In this larger series, the evidence indicates a continuous change of certain properties of the electro-encephalogram with increasing mental age rather than an abrupt change at the 6-year mental age level. Mental age range was 1.5 to 7.5 years.

approximate equivalence in mental age ranges of the various groups, only subjects under a mental age of 8 were included in any of the mentally deficient groups represented in the diagram. It will be recalled that in the "hereditary group," no consistent change in the electro-encephalogram with increasing mental age was found up to a mental age of 8. The three sections of Figure 2 show for each of the properties of the electro-encephalogram mentioned earlier the arithmetic means obtained for different clinical types. The number of subjects in each group is indicated under the graph for "pattern." The term "pattern" is used here as a short term for the phrase "percentage of time occupied by regular sequences of alpha waves."

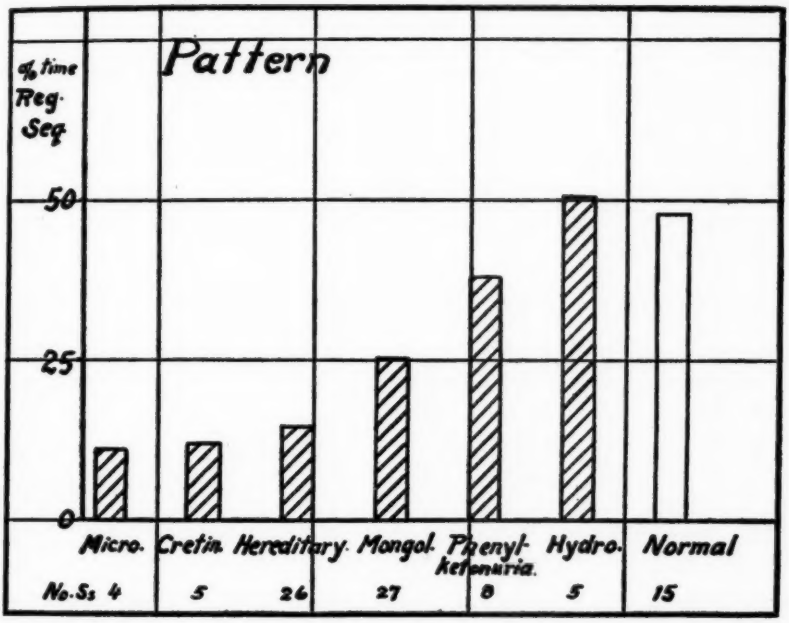

FIGURE 2A—Average percentage of time occupied by regular alpha sequences in different clinical types of mental deficiency. (Occipital electro-encephalogram.)

There is scarcely time to consider details of the results concerning the various groups. A few points of special interest may be selected. The relatively large number of subjects in the hereditary and mongolian groups permitted these groups to be compared with each other on a satisfactory statistical basis. The mongolian group was found to surpass the hereditary group of equivalent mental age range in prevalence of regular sequences of alpha waves, in frequency of waves, and in average

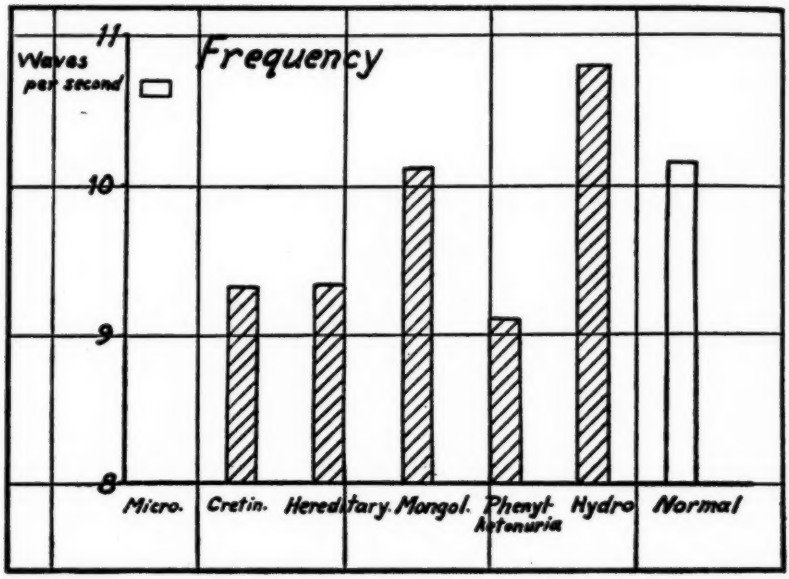

FIGURE 2B—Average frequency of waves in regular alpha sequences in different clinical types of mental deficiency. (Occipital electro-encephalogram.)

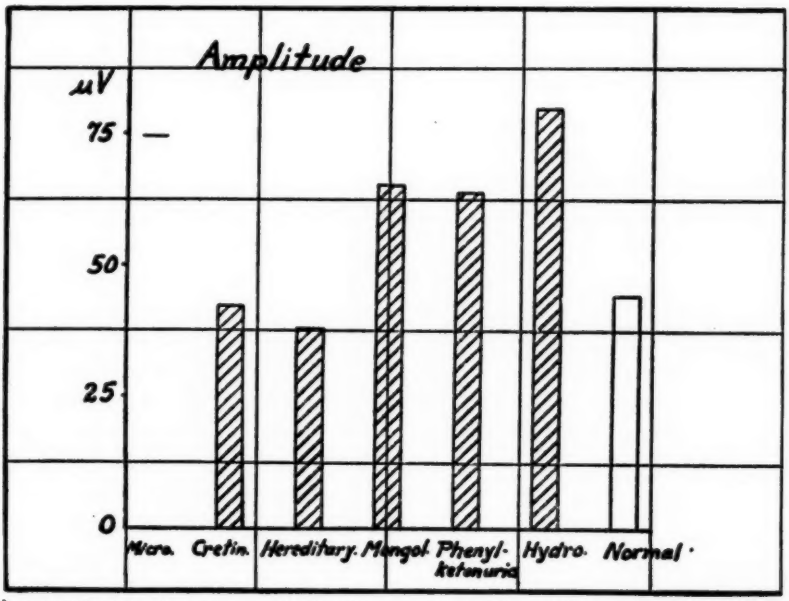

FIGURE 2C—Average amplitude of waves in regular alpha sequences in different clinical types of mental deficiency. (Occipital electro-encephalogram.)

amplitude of waves in regular sequences. These differences were statistically significant for the last two properties named and almost so for the first. There is thus strong evidence, in the case of these types, that the electro-encephalogram varies with type of mental deficiency.

Another group of interest is that made up of subjects with hydrocephalus. One of the most distinctive features of this group is the extremely high amplitude of the waves found in the records. In explanation of such high amplitudes a large number of factors that may play a role in the production of the electrical rhythms of the cortex might be considered—factors such as functional condition of the individual nerve cells, degree of synchronism among the cells, and distribution of the cerebro-spinal fluid about the brain.

A consideration of the distribution of the cerebro-spinal fluid in hydrocephalus suggests itself a plausible explanation of the high amplitudes exhibited by hydrocephalic subjects. In the normal individual the flow of cerebro-spinal fluid over the convex surfaces of the brain provides an electrically conducting shunt that, on purely electrical grounds, must be regarded as contributing materially to a reduction of the potentials detectable by electrodes attached to the surface of the scalp. In internal hydrocephalus, the most common variety, a block has occurred at some point in the ventricular pathway. As a result, the flow of cerebro-spinal fluid around the outer surface of the brain is eliminated or considerably reduced. Under such conditions, the electrical shunt normally present is eliminated, that is to say, the electrical resistance of the film or layer of fluid covering the brain surfaces must be markedly increased. We should therefore expect that the potentials detectable by electrodes attached to the scalp will be greatly increased, other things equal. Our records show, in fact, that the average voltage of the brain waves found in hydrocephalus is almost twice as great as the average for the mentally normal group, and appreciably greater than that of any of the other mentally deficient groups. In external, or in communicating hydrocephalus, this increase in amplitude of the alpha waves would not be expected, in terms of the above hypothesis. It would be of great interest, therefore, to check this hypothesis through the recording of both encephalograms and electro-encephalograms on a group of individuals with hydrocephalus.

Such a study would indicate the possibility of using the electro-encephalographic technique as a supplement or as a substitute for the encephalogram in the diagnosis of hydrocephalus and its varieties.

The group of subjects with phenylpyruvic amentia also provides results of considerable interest. We are indebted to Dr. Jervis, of Letchworth Village, for the identification of the individuals in the Vineland institutions with this type of mental deficiency. The term used to designate this group in Figure 2 is phenylketonuria, the name suggested by Penrose (18), who

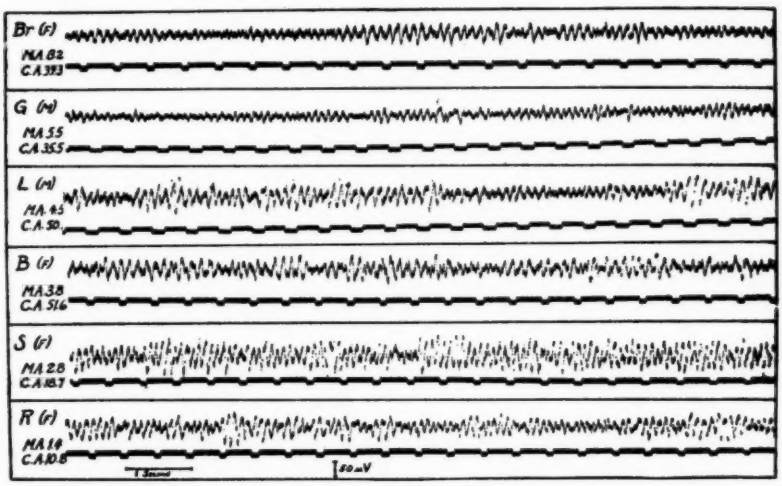

FIGURE 3—Electro-encephalograms of mentally deficient subjects with phenylketonuria. M.A. indicates mental age, and C.A. chronological age.

has made several studies of this type of mental deficiency. Dr. Jervis has reported, in an extremely interesting paper given before another session of this association, that about one per cent of the institutional feeble-minded population shows the presence of phenylpyruvic acid in the urine. The electro-encephalograms that we have obtained on a small group of individuals of this sort show rather distinctive features. These features consist of a relatively high percentage of regular sequences and relatively high amplitudes and low frequencies of alpha waves making up regular sequences. The frequency averages about 9 waves a second compared with an average of 10 in the normal group. The variability in frequency among different subjects of these two groups being quite small, the differences between the groups will probably be found to be statisti-

cally significant. Samples of records obtained in the phenylketonuric group of subjects are shown in Figure 3.

The low frequency found among phenylketonurics is of interest in the light of some of the factors that have been found to influence the frequency of alpha waves. On the one hand, we have the work of Penrose, who concludes that the metabolic disturbance present in phenylketonuria is due to a diminished rate of oxidation or rupture of the benzene ring in phenylpyruvic acid (18). This metabolic defect is probably a consequence of the absence of the appropriate oxidizing enzymes. On the other hand, there is the evidence brought forward by Hoagland (7, 8), and by Lindsley and Rubenstein (15), that various factors, such as blood sugar, body temperature, and basal metabolic rate, factors which may be presumed to correlate with rate of oxidation of the brain cells, have a significant effect on the frequency of alpha waves in the electro-encephalogram. Variations in these factors which may be expected to reduce rate of oxidation in the brain cells lead to reduction in alpha frequency. The reduced frequency of the alpha waves in phenylketonuria suggests then that in individuals with this disease there may be a reduced rate of oxidation of the cortical cells, due presumably to a deficiency, in the brain cells, of essential enzymes. The question may be raised of whether the deficiency of such enzymes in the brain cells may not be related to the absence of the enzymes necessary for the oxidation of the benzene ring of phenylpyruvic acid. The low alpha wave frequency and the presence of phenylpyruvic acid in the urine may thus both be functions of deficiencies of essential oxidative catalysts in the body cells.

The results obtained in the small group of cretins examined are also of interest relative to other findings in the literature. The cretin group differs very markedly in many of its clinical characteristics from the phenylketonuric group, as is clear from the description Jervis has given of the characteristics of the latter group. The cretin , however, also shows alpha waves of relatively low frequency. Lindsley and Rubenstein have reported that in a normal subject to whom thyroxine was given, a parallel increase in basal metabolic rate and frequency of alpha waves was observed. The results in our cretin group provide the logical counterpart of Lindsley's evidence. For here we find cretinism, a condition characterized by deficient secretion of thyroxine, associated with a relatively low frequency of

alpha waves. In both cretinism and phenylketonuria, this reduced frequency is possibly a function of a reduced rate of oxidation of cortical cells, but the cause of this reduced metabolic rate is undoubtedly different in the two cases—in cretinism being a deficiency of the thyroid hormone, and in phenylketonuria probably a deficiency of other essential catalysts.

The hypotheses that we have proposed in the latter part of this paper are frankly speculative. They indicate, however, how the results obtained from investigation of the electric potentials of the brain can, when coupled with other sets of facts, suggest new approaches in the investigation of mental deficiency.

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The Story of Four Mile Colony*

ELIZABETH C. DEVERY

HAPPINESS FIRST

Motion pictures have always been a delight. Long before the "talkies" arrived, the Colony had its moving pictures. In a way, they were earned by the boys. On the evening of February 18, 1919, there was a birthday dinner served for ten in Laurel Cottage (now the Trading Post) in honor of the birthdays of Mr. Macomber and Mr. Clarence Deacon, a loyal and helpful friend in those days. After dinner the guests went over to Lupin (old one) and the boys entertained them with a Minstrel Show. The guests were so pleased that they contributed, on the spot, $80.00 for a moving picture machine. The boys still had to wait awhile, for it was ten months later that they had their first movie show—"Huckleberry Finn and Tom Sawyer" and "Fatty Arbuckle Out West." On March 15, 1933, the first talking pictures were shown—a little over thirteen years later.

An assembly Hall occupied the second floor of Lobelia (now Lupin). This was just the thing for dances, parties, and entertainments. But what shouts of delight and jittery nerves when the boys had to go down that chute outside for a fire drill! With this one exception, the boys occupied only the first floor throughout the Colony. Today they no longer use the old Assembly Hall, for they have outgrown it.

From the earliest days the boys have had a "store." At one time it was every week; but when the shoppers grew to be several hundred in number, it would require a Wanamaker store to accommodate them so often. Now they have their store once a month, usually in the school basement.

Birthday parties have been celebrated from the beginning, when it would be for only one boy. Now there must be "mass production" in that as in some other things. Birthday parties are held once a month for groups of boys. Innumerable cottage parties, independent of the outside Colony world, have

* This is the eleventh of a number of stories telling something of the brief life history of the Burlington Colony at New Lisbon. These stories are being told in a simple manner for the Colony boys themselves.—Editor.

been given by kind-hearted and motherly cottage attendants, who usually forget that these boys are not their own children.

There have always been high-jinks, upon every possible occasion. There has been swimming in cranberry bogs and pools, at Chatsworth Lake, in streams and at one time there was a concrete swimming pool on the site of the State Garage. The boys' little club house stood behind Laurel in the grove. It burned down in September 1919, destroying Francis A's drum and some phonograph records. Later the Boys' Club occupied the second floor of the old laundry, which stood beside the present cannery.

At this time the Colony was guided by the Board of Lady Visitors. Through one of its members, Mrs. Lester Collins, a wealthy resident of Moorestown contributed a new club house for the boys, which was called the Recreation Building. It was a Christmas present, and the opening ceremonies were quite an occasion. It had two rooms with open fireplaces, and was furnished with games, books, etc. That, too, was outgrown; and now the little clubhouse is—the smoking room. Just one room, and bare of all furniture, it affords the older boys one smoke after each meal.

It would require a special history to describe fully the program of recreation through the Colony's life. We can only touch lightly upon the various goings on. There have been all kinds of contests; marbles, with sometimes 108 boys taking part; kite-flying, with prizes for the largest, the smallest, the most unique, and the highest, with sometimes fifty kites in the air at once; dancing; harmonica. There have been clam hunts at the seashore; watermelon parties; cross country runs; "sings," with the band to accompany; outside entertainers, including Punch and Judy ventriloquists, magicians, vaudeville, and minstrels; fireworks on the Fourth of July. There have been vacations to the shore of two days and a night for boys who cannot go home for vacation, and one day for those who can. In 1934, five hundred boys had this pleasure.

In 1935 came something new under the sun, introduced by the man who has brought so many new things to the Colony, Dr. Jones. This was the newspaper, "The Four Mile Sign Post." It is a form of recreation that educates as well, and does a great deal to bring the Colony closer to its friends in the outer world,

and to make new friends. Many boys have been taught to write for it themselves. They enjoy this work, all the way from the thrill of having one's name in the paper to writing an editorial. In no issue since the paper began, in May 1935, has there been one with less than seven boy contributors, and in some issues they run as high as twenty-seven. The average is twenty.

In the summer of 1935, Dr. J. Garton Needham, resident Psychologist, organized a series of Hobby Clubs, where with a leader boys could follow their favorite pastimes. There have been active in that two years, off and on, mostly on, the following clubs: drill, current events, bird, nature, Boy Scouts, travel, art, reading, wrestling, glee, music, orchestra, stamp, letter writing, Bible study, and press. The musical clubs often furnish concerts and minstrel shows for the whole Colony, and for outside entertainments. The present and future plans of the clubs would require another history.

Late summer of 1935 saw the beginning of the supreme joy of all—camping at Ockanickon. The boys took their turns there as they had at the shore. It is a Y.M.C.A. camp, about eighteen miles distant, where the boys swim; boat; fish (with doubtful results) eat outdoors; smoke before a huge log fire; listen to tales by the Sioux Indian, Bear Heart; sleep in tents; take hikes and go home dreaming of the good times until the next camp a year later.

Next came the Library, opened in December 1936, in the basement of Lupin. It was not the first library; the boys have always had books around, more or less, but not in any great quantity, nor under strict supervision. There used to be a library of about 300 books which later became scattered. Our library now, of 4000 books, is run as nearly as possible as an outside library, with cards, files, rules and a librarian who is terribly fussy about everything. It is a cheerful place, where boys who cannot read cluster about the tables, looking at picture books and magazines and where about 200 boys take out books on their membership cards.

Book Review

A SOCIAL PROBLEM GROUP? by C. P. Blacker, London, Oxford University Press, 1937. Pp. 226.

This stimulating book merits thoughtful study by those interested in problems of social welfare. Observing that nearly all studies of mental deficiency have observed a marked coincidence of related social problems such as insanity, epilepsy, inebriety, poverty, crime and the like, the attempt is made to reveal this correlation of social problems by approaching the central question "Is there a social problem group?" from each of the specific forms of social abnormality.

A distinction is made between social inadequacy (or undesirability) as a *social* problem and as a *family* problem, thus recognizing the resources of the family (and relatives) as the first wall of defense in social work, namely the individual as a family burden versus the individual as a social menace.

The thesis is clearly set forth and is then evaluated by factual approaches from the several fields of social pathology. The evidence points to a heavy incidence of socially undesirable persons in the lower social stratum, the submerged tenth, the subcultural or social problem group, as contrasted with marked absence of these in the more favored social classes. Careful attention is paid to logical analysis in terms of presence and absence, cause and effect, and selective versus random samples. The relative influence of heredity and environment is temperately discussed. This logical treatment, so deplorably lacking in many studies which are more prejudiced than scientific, justifies itself in a well-balanced consideration of significant tendencies.

The chapters on specific social problems are valuable in themselves as well as in their relation to each other.

EDGAR A. DOLL

The Sixty-second Annual Session or the American Association on Mental Deficiency will meet in Richmond, Virginia; Hotel Jefferson, headquarters; April 20-23, 1938. There is a very full program in prospect which promises to be of interest to all who can attend.